- 44. Ægialitis vocifera (Linn.). KILLDEER PLOVER. A rare migrant, seldom more than one seen.
- 45. Ægialitis semipalmata (Bonap.). RING-NECK PLOVER. This pretty little bird arrives in August and September; it frequents the sandbeach in flocks of three to six, and runs along at considerable speed, uttering its plaintive call note.
- 46. Arenaria interpres (Linn.). Turnstone. Numbers arrive at the migration season; they frequent the seashore, and may be found amongst the débris cast up by the sea. A few remain all the year. I have seen them on the sands of Dumfries and Belvue South at all seasons, and also on the mud flats at Grand Anse. I observed one at the lagoon perched on the mangrove roots eating small oysters.

(To be concluded.)

## NOTES ON THE SPECIALIZED USE OF THE BASTARD WING.

BY WM, HUBBELL FISHER.

## Plate VIII.

IN A book entitled 'The Structure and Life of Birds,' by F. M. Headley, M. A., F. Z. S., published by Macmillan & Co., London and New York, 1895, the author states that he saw a pigeon "when checking his speed in air, lift the bastard wing so that daylight was visible between it and the long feathers, this petty appendage jutting out and impudently spoiling the beautiful line of the front margin of the wing from tip to tip." He further says that "this curious phenomenon may be seen if you stand at the British Museum (the Antiquarian Department at Bloomsbury), as the pigeons which are usually feeding in large numbers in the front fly up and settle overhead on the pediment." He adds that "in Muybridge's photographs of the Cockatoo, on the wing, both bastard wings may be seen to be slightly raised, for what purpose it is hard to say. In the pigeon, they project during a vigorous stroke, but I have seen no other bird use them either for stopping or striking." On page 254 of his work, figure 65, Mr. Headley

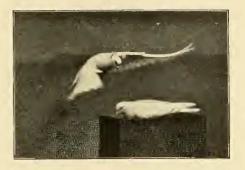


FIG. 1. PIGEON SHOWING BASTARD WING IN FLIGHT.



Fig. 2. STORK SHOWING BASTARD WING IN FLIGHT.